5 .

Abstract of the Disclosure

A photosensitive polymer having a protecting group including a fused aromatic ring, and a photoresist composition including the photosensitive polymer are provided. The photosensitive polymer has an acid-labile protecting group at its polymer backbone, the acid-labile protecting group including a fused aromatic ring having formula:

where R_1 is hydrogen atom or alkyl group having from 1 to 4 carbon atoms; X is hydrogen atom, halogen, alkyl, or alkoxy; and y is an integer from 1 to 3, wherein the fused aromatic ring is a liner ring or branched ring with y greater than or equal to 2.

A photoresist composition is also provided which includes the photosensitive polymer and a photoacid generator(PAG).